HORSE TRADES

This page of the Bulletin is for classified notices of RTTY EQUIPMENT FOR SALE OR TRADE and those looking for equipment to buy or trade. It is a free service and may be the means of getting someone on the air.

FOR SALE: Model 15, $100.00 Model 14 typing reperf Reperforator, $50.00. Model 14 keyboard, $50.00. Model 14 cover and base $75.00. 3KSDN, 1700 mober Ave Harwood Crafic

WANTED: Model 14 Keyboard. W6FK, W6BVQ, 1705A West Winton, Torrale and 10ucts, W6NTK, Grant E. Storey, 1705A West Winton, Hawthorne, Calif. (formerly handled by W6CQK).

FOR SALE: Teletype Corp., Manuals Model 28 Sequence selector, $8.00 postpaid. Model 28 automatic ASR 2 110/60 $5.00. All for $8.00 postpaid. A. Chuck W6IYT 41 Lenape Drive, Portola Valley, Calif.

FOR SALE: Model 15 printer with 50 cycle motor $90.00, AGIF.

FOR SALE: Model 14 reperforator table, communications type, $65.00, W7IE.

WANTED: ASR or RO Teletype Terminal Unit CY71, parts or complete unit. W7IE.

FOR SALE: Model 15, working, less cover and crank, $50.00 Up only. KDDDC P. O. Box 231, Chillicothe, Ohio.

FOR SALE: Two Plated rectifiers 95-125 V AC, 140-180 V DC, 75 MA, $5.00 each. W6FK, W6BVQ, 1705A West Winton, Hayward, Calif.

FREE: One model 26 printer, 14 table, comm type and keyboard, good condition. WU model 2B tape printer. Schematics for model 15 printer send stamped self addressed envelope to K6ZBL, 2516 Delaware

FOR SALE: Model 15 sync motors (GE) $10.00. MDC Instruments, 924 West Schuber Street, Philadelphia 40, PA.

RTTY, Inc.
372 WEST WARREN WAY
Arcadia, California
Return Postage Guaranteed

PASADENA JAN 9 1962

RTTY

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NEWS OF AMATEUR RTTY

JANUARY, 1962
30 Cents
Vol. 10, No. 1

FIRST WORLD WIDE RTTY SWEEPSTAKES CONTEST RESULTS - - - W6TPJ

The honor of becoming the winner of the "First World Wide RTTY Sweepstakes" held October 21-23, 1961, was achieved by WØNFA, Chester B. Franz, with a total score of 33,738 points. Chester, an old butter and egg tycoon of Kirkwood, Missouri, is a fairly recent newcomer to the fraternity of green keys. Experienced at haunting the DX bands on CW and SSB, Chester will continue to be tough competition in future RTTY contests.

Second, Third and Fourth places were captured by the "old pros" W2RUI-32,714-W7ESN-30,270 and TC9AD-29,574. To complete the top ten, these were followed by W6TPJ-28,319 11RIF-25,040 W5BGP-24,684 KH6IJ-22,766 K3GIF-20,728 and KR6MF-18,135.

Four stations made RTTY W.A.C. during the contest period; WØNFA, W7ESN, TG9AD and W5BGP. Continent leaders were: WØNFA, YV1EM, ZS1FD, 11RIF, KH6IJ and KR6MF.

Active during the contest period were over 209 stations in 20 countries and all continents. Over 90 per cent of the foreign stations and 50 percent of the U.S. stations submitted logs to RTTY.

The contest wishes to thank everyone who found time to include letters commenting on the contest activity.

Listed below are the complete contest results in detail by call areas.

CALL	POINTS	STATES	COUNTRIES	CONTINENTS	SCORE
W1BDI	39	15	2	2	1385
W1BGW	38	2	12	4	9676
W1MVH	88	27	5	3	5376
W1QP	18	5	2	1	490
W1TLZ	58	15	2	1	1270
W2FAN	29	11	2	2	1119
W2JAV	235	28	18	3	17380
W2RUI	266	29	25	5	32714
W2TKO	79	20	4	2	3180
W3DJZ	104	21	7	2	4984
W3DTH	34	14	0	1	476
K3GIF	108	16	19	5	20728
W4BKJ	111	25	5	3	5775
W4BOC	103	20	18	4	16460
W4EJY	148	29	10	3	11492
W4FJ	6	3	0	1	18
W4GJY	108	26	5	3	5808
K4JXG	110	23	8	3	7330
W5APM	99	25	3	2	3675
W5BGP	76	9	20	6	24684
W5BOT	9	4	0	1	36
K5BVM	100	22	8	2	5400
W5CSN	48	15	3	1	1320
W5EUN	155	28	12	4	13940
K5FFO	22	8	1	1	376
W5FHW	14	5	0	1	70
K5HSW	102	24	7	2	5248
K5MKA	52	22	2	1	1544
W6AEE	126	25	8	3	7950
W6CG	100	16	19	4	16800
W6RTS	102	23	11	3	8946
W6JOX	54	15	5	2	2810

CALL	POINTS	STATES	COUNTRIES	CONTINENTS	SCORE
W6LIP	42	15	5	3	3630
W6NRM	119	19	6	2	4661
K6OWQ	30	3	10	3	6090
W6TPJ	197	27	23	5	28319
W6WLI	108	19	6	2	4452
K7BXS	72	16	6	3	4752
W7CBY	100	18	7	3	6000
W7ESN	249	30	19	6	30270
W7FEN	142	25	14	4	14750
W7LI	12	2	2	1	424
W7PHG	182	29	13	3	13078
W7RGD	18	3	0	1	54
W7RQQ/7	111	23	9	3	7953
K8BIT	50	12	4	2	2200
W8CAT	97	23	8	3	7031
W8CLX	128	29	13	4	12960
W8KJK	140	29	10	4	12060
W8VMP	85	24	5	3	5040
K9BBN	36	15	0	1	540
K9BJM	67	17	8	4	7539
W9COW	38	10	4	2	1980
W9LFK	62	20	0	1	1240
WØASO	146	29	2	1	4634
WØFQW	83	20	4	2	3260
WØGK	180	31	6	2	7980
WØJHS	18	8	0	1	144
WØNFA	198	31	23	6	33738
WØPBD	24	12	0	1	288
WØPHM/4	196	29	6	3	9284
WØRX	54	17	3	2	2718
DL6EQ	120	6	6	4	5520
G3BXI	320	13	12	4	13760
G3CQE	330	17	8	3	10410
G3GNR	100	3	5	3	3300
GM3IQL	160	8	5	2	3280
GM8FM	110	6	5	2	2660
11RIF	520	22	17	4	25040
KH6ANR	64	17	8	3	5888
KH6IJ	246	21	22	4	22766
KL7FA	82	14	6	3	4748
KL7MZ	134	21	7	4	8414
KM6BU	390	14	12	4	15060
KR6MF	415	9	18	4	18135
KZ5KR	103	23	11	3	8969
LA6J	100	3	8	2	3500
PAØFB	60	5	3	2	1500
TG9AD	162	27	21	6	29574
VE3CM	30	13	3	2	1590
VE4BJ	107	18	12	4	11526
VE7KX	74	17	7	3	5458
VK3KF	315	10	14	4	14350
XE1BI	120	26	6	2	5520
YV1EM	185	15	3	1	4375
ZK1BS	240	6	15	3	10440
ZL1WB	100	2	8	3	5000
ZL3HJ	145	8	6	4	5960
ZS1FD	200	14	4	3	5200
ZS1NE	30	0	2	1	430

(Thanks to Jerry W6TPJ, for the many hours work on The Contest Logs. *Editor*)

THE SWITCHOLETTE

Paul A. Hudson, WA6AVJ/AFB6AVJ
4135 Jackson Street
Arlington, California

A call letter assignment like the one in the title line just can't be associated readily with the name of a unique piece of gear — so a marrying of "Switching Consolette" makes up the name of the unit to be described.

One of the most difficult phases of system design for the RTTY neophite has been that of setting up the DC teletype signal circuit. Even the most experienced dyed-in-the-wool communicator goes down before the onslaught of this "simple and straight forward DC circuit". In trying to arrive at a sort of "standard" approach to this problem, the fact becomes evident that there is no standard circuit design in the entire field of this mode of telecommunications. This includes the industrial, military and hobby phases. Certain "local" system standards appear from time to time but each major installation seems to differ in some significant way. Questions as to whether "positive" or negative ground is used or which polarity is assigned to the "tip" or "sleeve" (or even "ring") seems to have been answered in as many ways as there are installations.

The author was confronted with this problem and the first try at solving it resulted in a workable system with a number of limitations built around a collection of modified gear - total result was that the first time the thing had to be modified, it had to be researched and rebuilt. As a result a "new" concept in a DC system design for the radio amateur was born. The system was called a "two loop"' system and centered around a consolette which will be described physically and electrically as well as operationally in the system layout.

SYSTEM EQUIPMENT

The foregoing narrative may sound like the prelude to a rather complicated device. On the contrary, simplification in circuit operation and integration is the prime motive for its design.

The teletype equipment involved are those that are found in what may be called the ideal amateur set-up. Many do not have all of the equipment now but the Switcholette will allow for instant expansion as each new unit is added.

A complete amateur RTTY system could consist of the following pieces of equipment.

1. Terminal unit (receiving converter) (TU).
2. Page printer.
3. Keyboard (may be on printer).
4. Typing reperferator.
5. Tape transmitter distributor (TD).
5. Frequency shift exciter (FSK).
7. Audio frequency shift exciter (AFSK).
8. 130 volt DC power suupply (current rating as required).
9. Oscilloscope.
10. Switching unit (the Switcholette).

To the fellow with a single Model 26 teletype machine this must look like a pipe dream. But for the serious contest worker and especially the traffic handler all or most of the above inventory is a "must".

The switching unit should provide the following features:

1. Instant switching and connection of all equipment.
2. Complete metering and adjustment of all loop and relay bias currents.
3. One switch transmit and receive control.
4. Connection of various signal monitoring devices.
5. "Stacking" and interconnection of additional switching units.

CIRCUIT DESIGN

Actual circuitry may be considered "typical" as any true ham can always see changes and improvements to suit his particular needs.

Referring to Fig. 1, it may be seen that the circuit is designed around a "two loop" concept and all equipments can be switched from one loop to the other instantly without disturbing the loop currents. The use of vacuum tube keying dictates that the negative side of the 130 volts DC be "grounded".

Starting at the power supply the circuit progresses through current adjusting variable resistors of the standard 25 watt 2500 or 3500 ohm type used in teletype work. The bias circuits for polar relays may be omitted or as many installed as required. As an example, two could be installed, one for the FSK relay and one for the AFSK relay. The polar relay bias metering jack is self-explanatory.

The "LOOP 1" and "LOOP 2" meter jacks could be connected with a patch cord from the "METER" (0 to 100 mils) jack. Howwever, it is more convenient to patch the meter into a spare "contact" switching circuit (the meter has negligible internal resistance, usually less than one ohm) thus it may be switched from loop 1 to loop 2 conveniently from the front panel.

The typical "coil" circuit can be built with fixed resistors, however, if you contemplate a frequent variation in coil resistance these resistors should be of the vairable 500 ohm, 4 watt type. An additional refinement would be the use of dual ganged variable resistors, as the resistances are identical. There is a limit on the number of "coil" circuits. This is governed primarily by the total allowable resistance in the loops. With the tube keying in the receiving TU this can not much over 700 ohms with a 130 Volt DC supply. An example would be a Model 15 printer at 210 ohms, a Model 14 at 210 ohms and 2 WE-255 relay line coils at 130 ohms each. This is a practical limit in most cases anyhow, as an increase in inductance beyond this point becomes detrimental to low DC signal waveform distortion. If one should have so much equipment to exceed this limitation a second Switcholette may be "stacked" and interconnected with a repeater relay. Only "coil" circuits need be incorporated in the second unit.

The "LOOP REVERSING" switch actually switches the receiving TU from loop 1 to loop 2. This switch is used in adjusting loop currents as well as other tests on the system.

"SCOPE" and "FSK" jacks are provided. These circuits are identical and supply voltage (potential) only. The "FSK" circuit can not key an FSK diode directly as the voltage regulation and wave form on the loops is poor enough to result in an indefinite amount of frequency shift. Many commercial FSK exciter units are positive potential (voltage) keyed and have keying limiters which provide perfect keying over a wide range of signal amplitude from the keying line.

The voltage derived from the "SCOPE" jack will drive the vertical plates of a scope directly. There is about 40 volts available and most 2 or 3 inch scopes will produce at least a half inch or more deflection. If the scope has an amplifier, the amplifier response should extend down to DC or at least to 5 cps. Actual wave forms will vary with the amount of inductance and capacity in the circuit. An advantage of the Switcholette is that the loops can be made purely resistive by switching the "coil" equipments to the other loop. Note that all keying devices toward the power supply from the "SCOPE" jack will key the scope voltage to zero on a spacing signal but the receiving TU will cause the voltage to rise to maximum on a spacing signal. Thus the mark level on the scope will be inverted. This should provide no real problem as long as you don't run out of screen. Use of the scope is covered in W6NRM's article in the November 1961 issue of RTTY at the bottom of the first column on page 3 and page 6. He discusses at length the use of the square wave type of scope presentation.

The actual point of connection of these two circuits could be moved to a point of higher voltage, if required, along the loop towards the power supply, but before any "contact" circuit.

The circuits around the "TRANSMIT-RECEIVE-LOCAL" switch are quite simple. In the "TRANSMIT" position, the receiving TU is cut out of the circuit to prevent circuit feedback when the receiver and TU are being used as aurual and visual monitors of the transmitter signal. The "LOCAL" position provides disabling of the TU circuit in the presence of noise and the absence of a signal. Under extremes of these conditions, even a hold circuit will trip.

The alternate receiving circuit is used in the "TRANSMIT-RECEIVE-LOCAL" switch circuit in the event the TU does not have vacuum tube keying. The Switcholette is not designed to work directly with those TUs that supply "battery" to the loop. Insertion of a relay between such units and the Switcholette is necessary. If using the alternate receiving circuit, R-1 and R-2, the primary current adjust resistors, must be omitted to allow the proper operation of the scope and FSK circuits. R-3 and R-4, the TU substitution resistors, then would become the loop current adjustment resistors.

CONSTRUCTION

The Switcholette may be built in a 12" X 17" X 3" chassis. The weight of the unit is not sufficient to prevent its being pushed around when switches are thrown or plugs inserted but a Model 14 Reperferator or a receiver on it will hold it down. A rack mounting scheme would not be hard to work out.

The switches are mounted in the front of the chassis along with the line current meter. An inexpensive switch to use for the 4 pole 2 position type is the Centralab #1459 or the Mallory #6242 and for the "TRANSMIT-RECEIVE-LOCAL" switch, a Centralab #1454 or a Mallory #6243. All switches are of the non-shorting types. The "SCOPE" and "FSK" switches may be ordinary toggle types.

The patching jacks are mounted along the rear. A single row jack strip of the commercial communications type, with the normal mounting hardware removed, and shortened slightly, will just fit in a cut-out along the top of the rear skirt. Standard phone jacks can be mounted on an insulating strip. The "POLAR RELAY BIAS" jack should be mounted beside a "coil" jack and a standard double audio type patch plug used to provide simultaneous connection to the polar relay. A Twist-Lock or Hubbel polarized plug is mounted in the rear for the 130 volts DC.

The current adjusting variable resistors can be mounted in the end panels of the chassis. Wiring is done with a good grade of stranded wire about 20 guage or so. If the wiring is cabled and laced the end result is a neat and durable job. Color coding of each wire can also help in case of trouble or modification later. All jacks and switches should be marked with designation strips or decals.

ADJUSTMENT

This is a switching unit "with no strings attached". Put it in place and plug in the equipment, the TU and the 130 volts DC. Throw the "TRANSMIT-RECEIVE-LOCAL" Switch to "RECEIVE". The current adjusting resistors can now be set by just using the current meter on the panel. The circuit is almost self trouble shooting. The following procedure is required to align the loop currents:

1. Set the current adjusting resistor R-1, R-2, R-3 and R-4 to minimum resistance. Plug in all equipment and the TU. Apply the 130 volts DC. (The current will run over 60 mils).

2. Throw all switches to the "LOOP 1" position and the "TRANSMIT-RECEIVE-LOCAL" switch to "RECEIVE". The receiving TU must be in a steady mark condition. Connect the meter to read loop 1 current and adjust R-1 (loop 1 primary adjust) until the meter reads 60 mils.

3. Throw the "TRANSMIT-RECEIVE-LOCAL" switch to "LOCAL" and adjust R-3 (loop 1 to TU substitute) until the meter again reads 60 mils.

4. Throw the "LOOP REVERSING" switch to "LOOP 2" and adjust R-4 (loop 2 TU substitute) until the meter again reads 60 mils.

5. Throw all "coil" switches to "LOOP 2". Connect the meter to read loop 2 current and adjust R-2 (loop 1 primary adjust) until the meter reads 60 mils.

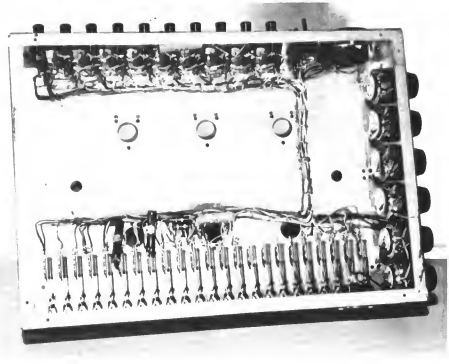
6. Now, one at a time, throw each "coil" switch to "LOOP 1" with the meter in loop 2 and adjust each coil substitution resistor to restore the 60 mil loop current.

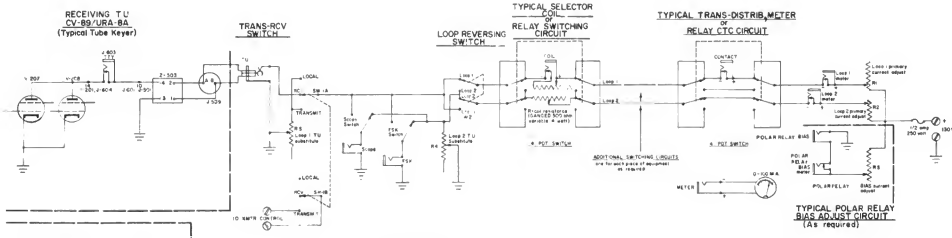
If the "ALTERNATE RECEIVING CIRCUIT" is used, R-1 and R-2 are omitted and R-3 and R-4 become primary loop current adjusting resistors. In this case procedures 3 and 4 are omitted.

OPERATION

The "coil" equipment may now be unplugged at will. If the coil substitution resistors have been properly adjusted there will be no change in loop current. Individual equipment may be switched from one loop to the other instantly. The page printer can be receiving copy on one loop while the answer is being cut in the other with the keyboard and the reperforator. When operating in a contest a CQing station can cut his call on tape and at a flip of a switch the calling operator can add his call from a prepared tape in the TD. (This is a boon to the "two finger artist").

This is the first working model of the Switcholette. Switching circuits being almost a state of mind, there will, no doubt, be some improvements which will be incorporated as they evolve from the long mental process. Remember, "Radio Teletypers Build"!





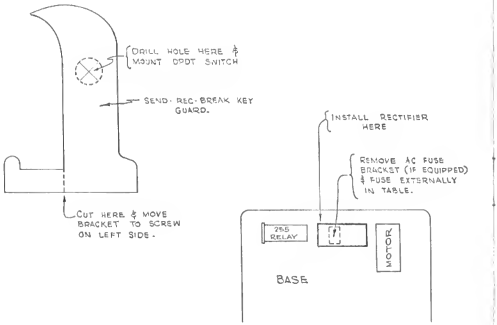
"THE SWITCHOLETTE"
WA6AVJ / AF6AVJ
RTTY CONTROL CIRCUIT

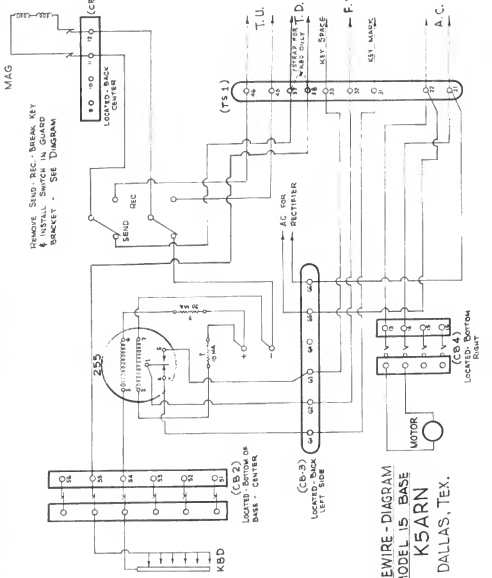
Rewiring The Model 15 Printer - - - K5ARN

Since so many different types of Model 15 RTTY bases are being acquired by ham operators, and some being equipped with features that will never be used, the following wiring plan was designed for removal of all wiring and auxiliary features that may be included on the base, and complete rewiring of the base.

This rewire is especially recommended if base has bad or old wiring.

1. Local battery for home copy can also be used for practice copy with XMTR turned off.
2. Rectifier mounted on base eliminates exterior power supply - small selenium works fine.
3. Key space or mark - using leads numbered 31 or 33 (TS1), which can be done by a switch if desired.
4. Minimum amount of wire to soak up oil and grease.
5. From send to receive by operation of single switch.
6. All connecting block locations are marked on print, for those not familiar with base or have no prints.
7. Less wiring, makes for easier fault locating.


DRILL HOLE HERE & MOUNT DPDT SWITCH
SEND-REC-BREAK KEY GUARD.
CUT HERE & MOVE BRACKET TO SCREW ON LEFT SIDE.
INSTALL RECTIFIER HERE
REMOVE AC FUSE BRACKET (IF EQUIPPED) & FUSE EXTERNALLY IN TABLE.
255 RELAY
MOTOR
BASE



DX-RTTY

Bud Schultz, W6CG
5226 N. Willmonte Ave.
Temple City, Calif.

Hi DX'ers:

Let's start this one by congratulating Skipper, Ches, Wayne, Bob Jerry, Bruno and all the rest of the top winners in the SS Contest!! The final tabulation is listed elsewhere in this issue. It can truthfully be said that the World-Wide SS Contest did more to further the cause of RTTY, in the DX category, than any other single thing since our humble beginning. During the test at least five stations made their WAC-RTTY in 48 hours or less, which is no mean accomplishment. Mail is still filtering in here from all over the World with inquiries about how to acquire info and gear for RTTY operati-n. All of it indicates the sudden interest was touched off by the recent SS "blitz". If this trend of overseas interest continues during the next few months at the present rate, next year's contest will really be a bomb.

Band conditions have continued to decline somewhat but there is still enough good openings to keep interest in working DX on RTTY at a high level. Ken, KM6BU, has been pounding thru in his usual manner and has been making fine copy out here on the West Coast until the band folds up. Conditions to VK and ZL have been spotty but in the past few days both ZL1-WB and ZL3HJ have been worked on SSB (of all things!!). This will come as a shocker to Eric, VK3KF, who claims that when an RTTY'er turns to SSB he is lost forever. However, both Alex and Bruce assured me that this fone biz was just a passing fancy. hi

Ed Clammer, K3GIF, writes that he and Henry, ZS1FD, have been running a sked at 0400 GMT on 7040 Kcs with good results and are now trying to arrange something with VK3KF for this same band. Ed also reports that Joe, YV5AFA, has secured one of the tiny, new Teletype Corporation's Model 31-A printers which he hopes to have in operation soon. YV5AFA has made several personal visits to Ed's place during the past Month. Ossie, ZS0CR, has received his TU back after ZS1FD worked it over so he should be active again by the time this gets into print.

W8SEY sends words that he had a good contact with OA4BN and received a QSL by Airmail. OA4BN advises that he will be looking for contacts on 14Mcs around 0300 GMT. W8SEY also worked LA6J who seems to be quite active these days. Cole, KR6MF, has been banging in here on twenty and says he has been hearing the Florida and the Northwest gang around 2200 to 2400 GMT and wants them to turn their beams in his direction. If you need Asia here's your opportunity. Cole tells me that KR6HY, KR6DZ and KR6GF are new ones now active on the green key circuit. Ches, WØNFA, writes that he has available a model 15 with 50 cycle motor that he acquired for Raju, VU2NR. It now develops that Raju is very much involved in a DX pedition and suggests that the printer be shipped on a "lend-lease" basis to some of the rare DX stations in the World (preferably Asia) to stimulate their interest in RTTY. WØNFA generously offers to donate this printer and in addition he has indicated he will contribute ten dollars to a start fund to underwrite the cost of shipping it to some exotic DX location. It seems like a most worth while project and if any of you are interested in participating, write or contact WØNFA. VU2NR advises that a philanthropic venture such as this might receive waivers on the usual customs fees in most Countries which would make the cost quite reasonable. It was further suggested that the recipient of the gear could operate it for a period of six months and then arrange to send it along to some other rare DX spot. This arrangement has worked out very satisfactorily for the CW and SSB DX groups so there is good reason to believe it might prove a fruitful venture for the RTTY group. Got any ideas or suggestions?

Bob, TG9AD, reports that he has been having excellent luck on forty meters. He has ordered a new Hy-gain monobander beam for the 7 MC band so keep your ears open around 7040 for him. Jan. PA0FB writes that he managed a contact with DL6AW on 3750 Kcs and is anxious to try some RTTY with the States on 80 meters. Drop him a line if you would like to try a sked. He evidently has a fine signal on this band judging by all the DX he has worked recently.

Rumors that several of the gang have printed ZB1FA on Malta seem to be well founded but I was unable to get any info as to times or frequency. If someone will "wise me up" I'll see that it gets into next month's column.

During the annual BARTG dinner in London Doc, G2UK, presented G3CQE with his WAC--RTTY Certificate. Bill reports that the dinner was well attended and that every one had a good time. It was decided that there would very definitely have to be an RTTY display at next year's RSGB show and plans were laid to insure this. Bill also mentioned that DJ4-KW is now active on FSK and there was mention at the BARTG gathering about an ON4 in Belgium who is on RTTY. More on both of these in the next issue (I hope!) The following WAC-RTTY certificates were issued this past month: 14. W5BGP, 15. WØNFA, 16. W8UUS, 17 .TG9AD, 18. KR6MF, 19. K4JXG, 20. W7FEN. Congratulations to all of you on your achievement.

Last month I promised to run the DX Country box scores in this column but not enough of you responded so I will have to hold off until you let me know what your present score is. Just drop me a card listing the Countries you have worked on two-way RTTY and indicate which are confirmed.

Well that's it for now, Gang, but please drop me a line if you hear any DX, rumors, or scuttlebutt. Without your help this job would be impossible.

CU Next month - 73

Bud W6CG

NINTH ANNIVERSARY RTTY SWEEPSTAKES FEBRUARY 23 and 24, 1962

The 1962 Anniversary Contest will be held starting Friday February 23rd at Six PM E.S.T. and run for thirty hours, ending at midnight on the 29th.

Messages shall consist of message number, originating station call, check or RST report of two or three numbers, ARRL section of the originator, local time (0000-2400 preferred), date, and band used (Meters or Megacycles.)

Scoring will be one point for a msg sent and receipted for entirely by RTTY, and one point for a message received and acknowledged by RTTY. Relaying or repeating by a third station disqualifies the message. The total message points is multiplied by the number of ARRL Sections worked to compute final score. Two stations may exchange messages again on a different band for added message points, but the section multiplier does not increase when the same section is worked on another band. ARRL Sections are as listed in QST (usually page 6) covering Canada, U.S.A. and some possessions. Each foreign country not included as a section but regarded by ARRL for DXCC credit is treated as a new section for RTTY multiplier credit.

Entries to the contest must be mailed within 15 days of its close, and must contain a tabulation of complete message data required by paragraph above both for messages sent and received. It should clearly indicate each new section worked, total section multiplier, total message points, computed score claimed, and a signed statement that all rules have been complied with. At the option of any amateur (or on its own initiative) the judges in the contest may request the original printer copy from any contestant, it being interpreted as record message communication within the meaning of FCC Reg. 12.136 (h) to be retained one year.

Certificates of award will be issued to the highest scoring station in any state in which there are 3 or more contestants. However an exception may be made where home state or country competition is not available provided the applicant specifically requests the award and makes a satisfactory showing of operation of least one quarter of the contest time and his score is above the lowest one-fourth of the contesants. The decisions of the judges are final.

Contest hours may be changed from time to time. Currently they are: Start; Friday 6 PM EST, 5 PM CST, 4 PM MST, 3 PM PST. End; Saturday 12 PM EST, 11 PM CST, 10 PM MST, 9 PM PST.

As the contest nears the date February 20 commemorates the anniversary of FSK authorization, only F-1 emission will be used in this contest on bands between 3.5 and 30 megs.

CHESTER, WØNFA, AFTER THE CONTEST

WAYNE, W7ESN

BOB ENGEL, TG9AD IN THE "HOT SEAT"

COLE, KR6MF

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